

**Statewide Information Management Manual
(SIMM)
Volume II, Guidelines
Guideline 5.0**

FEASIBILITY STUDY REPORT GUIDELINES



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SIMM: Volume II, Guideline 5.0
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Section 1:

INTRODUCTION TO THE FEASIBILITY STUDY REPORT

1.0 OVERVIEW

These Feasibility Study Report (FSR) guidelines have been prepared to assist State of California departments in meeting the Department of Information Technology (DOIT) requirements for documentation of feasibility studies for information technology project proposals. The requirements for FSRs, including the circumstances in which FSRs must be approved by the DOIT, are described in policy statements contained in State Administrative Manual (SAM) Sections, SIMM Volume I, Policy 5.0, and/or associated Management Memos.

The FSR provides a basis for understanding and agreement among project management, program management, and executive management, as well as state-level control agencies. The FSR provides a summary of the results of the feasibility study and, as such, should be prepared at a level of detail commensurate with the scope and complexity of the proposed technical solution. Sufficient technical detail should be included in the FSR to demonstrate that the proposed solution to the business problem or opportunity is workable and realistic. Departments are required to complete all sections and subsections of the FSR, including the Information Technology Project Summary Package.

In evaluating FSRs submitted by departments, the DOIT will consider the following factors in establishing a position on the proposed project.

2.0 REVIEW CONSIDERATIONS

2.1 Alignment with State Mission

1. Does the proposal conform to business and IT strategic plans at the State, Agency, and departmental levels?
2. Is the proposal consistent with statewide IT policies, requirements, and standards?
3. Does the solution address an enterprise-wide problem, and has the proposing department coordinated its role with the DOIT?
4. Has the department researched similar or related challenges and solutions in other State departments?

2.2 Project Viability

1. Are the project goals valid?
2. Would completion of the existing project prevent a new project or project phase from addressing any new business goals?
3. If the project appears unlikely to achieve its stated goals, can it be terminated in a manner that minimizes costs and adverse impact?
4. Are there factors that could affect project viability?

2.3 Justification for Proposal

1. Has the need for the proposed project been adequately established?
2. Does it appear that the project will be able to meet its goals using planned resources?
3. What are the estimated costs and benefits of the proposed project? Do the benefits outweigh the costs?

2.4 Project Management Factors

1. Will appropriate measures be taken to ensure successful completion of the project?
2. Are the proposed resources adequate to achieve the stated goals?
3. Does the proposal address on-going operations and maintenance of the proposed solution?
4. Is the proposed schedule realistic?
5. Does the project schedule provide for project phasing?
6. Will the project follow a structured project management methodology?
7. Are project management measures and procedures commensurate with the scope of the project?
8. Does the project plan include sufficient detail to ensure project management success?
9. Will program management be included throughout the project?
10. Have programmatic-based measures of project success been identified?
11. Does the proposed procurement method conform to State policies and regulations, while leading to the selection of a capable contractor?
12. Does the project have the commitment and support of executive management?

13. Does the department possess, or can it acquire, the necessary technical and management expertise?
14. Can the department complete this project in conjunction with other approved or requested projects?
15. What qualifications are required for the project manager?
16. Will independent project management services be required?

2.5 Proposed Solution Analysis

1. Will the proposed solution effectively address the project's programmatic, or business, objectives?
2. Is the proposed solution an appropriate use of technology?
3. Does the proposed solution conform to statewide infrastructure standards, including the use of data centers and consolidated network services?
4. Does the solution conform to statewide technical architecture standards?

2.6 Security, Oversight, and Risk Management Factors

1. Will independent project oversight resources be employed to assist the State in protecting its interests and, if so, have adequate provisions and resources for that oversight been included in the project plan?
2. Have potential threats to a successful project outcome and a related mitigation plan been identified?
3. Does the proposed project include sufficient operational recovery and security provisions to meet the requirements of the program function?
4. Are project oversight and reporting requirements adequate?

NOTE: An electronic copy of the FSR outline, all required forms, charts, etc., and a sample of a completed FSR will be available from the DOIT web site: www.doit.gov.ca

An outline of the FSR project initiation process is included on the next two pages; the sections following describe the eight FSR sections in detail.

Section 2:

Feasibility Study Report Outline

1.0 EXECUTIVE PROJECT APPROVAL TRANSMITTAL

- 1.1 DEPARTMENT NAME
- 1.2 PROJECT TITLE
- 1.3 PROJECT ACRONYM
- 1.4 DEPARTMENTAL PRIORITY
- 1.5 AGENCY PRIORITY
- 1.6 APPROVAL SIGNATURES

2.0 IT PROJECT SUMMARY PACKAGE

- 2.1 SECTION A: EXECUTIVE SUMMARY
- 2.2 SECTION B: PROJECT CONTACTS
- 2.3 SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS
- 2.4 SECTION D: PROJECT SCHEDULE
- 2.5 SECTION E: BUDGET INFORMATION
- 2.6 SECTION F: VENDOR PROJECT BUDGET
- 2.7 SECTION G: RISK ASSESSMENT INFORMATION
- 2.8 SECTION H: PROJECT PROFILE

3.0 BUSINESS CASE

- 3.1 BUSINESS PROGRAM BACKGROUND
- 3.2 BUSINESS PROBLEM OR OPPORTUNITY
- 3.3 BUSINESS OBJECTIVES
- 3.4 BUSINESS FUNCTIONAL REQUIREMENTS

4.0 BASELINE ANALYSIS

- 4.1 CURRENT METHOD
- 4.2 TECHNICAL ENVIRONMENT
 - 4.2.1 EXISTING INFRASTRUCTURE

5.0 PROPOSED SOLUTION

- 5.1 SOLUTION DESCRIPTION
- 5.2 RATIONALE FOR SELECTION
- 5.3 OTHER ALTERNATIVES CONSIDERED
 - 5.3.1 DESCRIBING ALTERNATIVES

6.0 PROJECT MANAGEMENT PLAN

- 6.1 PROJECT MANAGER QUALIFICATIONS
- 6.2 PROJECT MANAGEMENT METHODOLOGY
- 6.3 PROJECT ORGANIZATION
- 6.4 PROJECT PRIORITIES
- 6.5 PROJECT PLAN
 - 6.5.1 PROJECT SCOPE
 - 6.5.2 PROJECT ASSUMPTIONS
 - 6.5.3 PROJECT PHASING
 - 6.5.4 ROLES AND RESPONSIBILITIES
 - 6.5.5 PROJECT MANAGEMENT SCHEDULE
- 6.6 PROJECT MONITORING
- 6.7 PROJECT QUALITY
- 6.8 CHANGE MANAGEMENT
- 6.9 AUTHORIZATION REQUIRED

7.0 RISK MANAGEMENT PLAN

- 7.1 RISK MANAGEMENT APPROACH
- 7.2 COMPLETED DOIT RAM REPORT
- 7.3 RISK MANAGEMENT WORKSHEET
 - 7.3.1 ASSESSMENT
 - 7.3.2 RISK RESPONSE
 - 7.3.3 RISK TRACKING AND CONTROL
 - 7.3.4 RISK RESERVES

8.0 ECONOMIC ANALYSIS WORKSHEETS (EAWs)

- 8.1 EXISTING SYSTEM COST WORKSHEET
- 8.2 ALTERNATIVE SYSTEM COST WORKSHEET
- 8.3 ECONOMIC ANALYSIS SUMMARY WORKSHEET
- 8.4 PROJECT FUNDING PLAN WORKSHEET

Section 3:

FSR PREPARATION INSTRUCTIONS

3.0 EXECUTIVE PROJECT APPROVAL TRANSMITTAL

A formal signature page will accompany each FSR submitted to the DOIT identifying specific information relating to the proposed IT project and containing the signatures of the approving department and agency executives. The following are the components of the Transmittal.

1. **DEPARTMENT NAME:** Enter the name of the State department, agency, office, board, commission, or institution that prepared the FSR and is responsible for the proposed project. If an FSR represents a proposed project in which multiple departments will have a role, one department should be designated as owner.
2. **PROJECT TITLE:** Enter the official name of the project as determined by the department. A maximum of 75 characters is allotted
3. **PROJECT ACRONYM:** Enter the official abbreviation for the proposed project that will be used as a common reference to the project. Projects are often more commonly known by their acronym, e.g., the Statewide Automated Welfare System (SAWS).
4. **DEPARTMENTAL PRIORITY:** Enter the department-wide priority assigned to the project. The priority assignment is a sequential number where “1” is the highest priority. Only one project per funding source in a given fiscal year may be assigned a priority of “1”. For example, if a department submits three FSRs for review, the priority assignments would be “1”, “2”, and “3”. In the case of multiple funding sources, the priority assignment should be based on the primary State funding source.
5. **AGENCY PRIORITY:** Enter the agency-wide priority assigned to the project. (If the department does not report through an agency, this priority would match the departmental priority.) The priority assignment is a sequential number, where “1” is the highest priority. Only one project per funding source in a given fiscal year can be assigned a priority of “1”. For example, if an agency represents departments submitting five FSRs for review, the priority assignments would be “1”, “2”, “3”, “4”, and “5”. In the case of multiple funding sources, the priority assignment should be based on the primary State funding source.
6. **APPROVAL SIGNATURES:** The signatures of executives within the department are required, documenting commitment and appropriate involvement at the departmental level. The required signatures include those of the Chief Information Officer, Budget Officer, Department Director (or Chief Deputy Director), and Agency Secretary (or Agency Undersecretary).

4.0 INFORMATION TECHNOLOGY: PROJECT SUMMARY PACKAGE

An Information Technology Project Summary Package (Attachment 1) must be prepared and attached to each FSR. It is not necessary to complete the dark gray areas, as DOIT will derive the information from its automated system. Instructions for completing the Project Summary Package follow.

4.1 Section A: Executive Summary

1. **Electronic Submittal Date:** System-generated.
2. **Type of Document:** Indicate the type of document being submitted: Preliminary Feasibility Study Report (Pre-FSR), Feasibility Study Report (FSR), Project Change Request (PCR), Special Project Report (SPR), Project Summary Package only (PSP), or FSR Reporting Exemption Request (FSR/ER).
3. **Project Title:** Enter the official name of the project as determined by the department. A maximum of 75 characters is allowed.

Project Acronym: Enter the official abbreviation for the proposed project that will be used as a common reference to the project.

Estimated Project Start Date: Enter the most accurate projection available for the estimated start date (MMDDYYYY).

Estimated Project End Date: Enter the most accurate projection available for the estimated completion date (MMDDYYYY).

4. **Submitting Department:** Enter the name of the State department, agency, office, board, commission, or institution that prepared the FSR and is responsible for the proposed project described in the FSR. If an FSR represents a proposed project in which multiple departments will have a role, one department should be designated as owner.

Forced Rank Project Priority: Enter the relative priority assigned to the project. The priority assignment is a sequential number where “1” is the highest priority. Only one project per funding source in a given fiscal year may be assigned a priority of “1”.

5. **Reporting Agency:** System-generated.
6. **Project Objective:** Provide a brief statement of the project’s primary objective in terms of the programmatic problem or opportunity to be addressed (maximum of 400 characters).
7. **Proposed Solution:** Provide a brief statement summarizing the proposed solution as documented in the FSR. This item should consist of a concise, non-technical, management-oriented description of the project (maximum of 400 characters).
8. **Project Phasing:** Identify the incremental phases, if any, into which the proposed project will be divided; also indicate the estimated budget required for each phase.

“Phase” can be defined as “an economically and programmatically separable segment that has substantial programmatic value, even if no additional segments are acquired.” Project phasing is further discussed in Part 6: Project Management Plan.

4.2 Section B: Project Contacts

1. **Contact Information:** Supply the names, phone numbers, fax numbers, and e-mail addresses of the principals involved in the project: Budget Officer; Project Sponsor; Document Preparer; Primary Contact; Contract Manager; and Project Manager; all other contact information is system-generated.

4.3 Section C: Project Relevance to State and/or Departmental Plans

1. **What is the date of your current Operational Recovery Plan (ORP)?** System-generated.
2. **Agency Information Management Strategy (AIMS)?** System-generated.
3. **For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.** Indicate whether the proposed project is identified in the department’s AIMS and/or strategic business plan, and enter the corresponding page number in that document.
4. **Is the project is reportable to control agencies? If YES, check all that apply:**
 - a) The estimated total development and acquisition costs exceed the DOF-established departmental cost threshold.¹
 - b) The new system development or acquisition is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.¹
 - c) The project involves a budget action.¹
 - d) The project will acquire any microcomputer commodities and the department does not have an approved Workgroup Computing Policy (WCP).
 - e) The project will include the provision of electronic access to private information concerning individuals or entities by entities other than the data owner or by other entities whose access is specifically authorized by law.
 - f) The project will include the installation or expansion of wide area network data communication facilities or services other than those acquired through contracts administered by the Department of General Services, or a State consolidated data center as defined in SAM Section 4982.

¹ The DOIT will forward a copy of the FSR meeting these reporting criteria to the Department of Finance (DOF).

- g) The project will consist of the development, acquisition or installation of technologies not currently supported by the department or not currently supported by a State consolidated data center.
- h) The project will consist of the development and/or purchase of systems to support activities as defined by the DOIT's Enterprise Systems Report.²
- i) The project consists of an acquisition or upgrade of a multi-user central processing unit, except for previously approved projects as defined under SAM 4819.2, or servers being used only for departmental Office Automation functions.

4.4 Section D: Project Schedule

1. **Major Milestone Description:** List the major milestones critical to project success. Milestones typically represent measurable events, such as delivery of a product. Targeted events that should be included are requirements definition, design completion, development completion, testing, production, and post-implementation evaluation. Any other key management checkpoints critical to project success, such as procurement dates or partial implementation dates, should also be included. While project management milestones are unique to each project, typical milestones include:

Typical Milestones	
Requirements Approval	Integration Test Complete
Phase Review Approval	Acceptance Test Complete
Prototype Approval	System Acceptance by User
Design Reviews Complete	Customer Shipment
Code Reviews Complete	Documentation Delivery
Unit Test Complete	Post-implementation Evaluation

Planned Delivery Date Relative to Project Start: Since the actual start date of a project is influenced by many factors, some of which are outside of the department's control, milestone "dates" should be established relative to the project's start date. For example, if a project's estimated start date is July 1, 1998, the estimated date of the first milestone might be described as "60 days from project start". A consistent time reference should be used (e.g., days, weeks, or months).

1. **Deliverable Description List:** List the deliverables critical to project success. Deliverables are reports or tangible products of one or more tasks that satisfy one or more objectives of a project; one or more deliverables are associated with each project management milestone.

² If it is determined that the business case or proposed solution is related to state financial accounting systems, the DOIT will forward a copy of the FSR to the DOF's CalStars unit.

Planned Delivery Date Relative to Project Start: Since the actual start date of a project is influenced by many factors, some of which are outside of the department's control, deliverable "dates" should be established relative to the project's start date. For example, if a project's estimated start date is July 1, 1998, the estimated date of the first deliverable might be described as "60 days from project start". A consistent time reference should be used (e.g., days, weeks, or months). (However, deliverables resulting from vendor contracts must be associated with real calendar dates.)

NOTE: Project management milestones and deliverables are discussed in more detail in Part 6: Project Management Plan.

4.5 Section E: Budget Information

NOTE: Some data for this section will be derived from the Economic Analysis Worksheets, and should not be entered in the Project Summary Package.

The data from the Economic Analysis Worksheets (EAW) (Attachment 2) for each fiscal year should be summarized in this section. If the proposal modifies or replaces an existing operation, savings and cost avoidances should be based upon comparison with the current method of program operation. If the FSR addresses a new program operation, estimated costs associated with the proposed information technology capability should be provided. If the proposed solution will increase program income (i.e., tax revenues, collectible audit exceptions, accounts receivable, etc.), the increased income should be reflected on the Economic Analysis Summary.

1. **Budget Augmentation Required?** Check whether or not a budget augmentation will be required to complete the proposed project (Y/N). Identify the requested dollars by fiscal year throughout the project.
2. **Project Costs:** Do not complete this section – data will be derived from the EAW.
3. **Sources of Funding:** Indicate the anticipated source of funding by fiscal year for the proposed project. If the project is to be funded from multiple sources, quantify the amount from each source. Examples include the State General Fund, interagency reimbursements, Federal funds, special funds, grant funds, and contracts. Do not enter amounts to be redirected -- data will be derived from the EAW.

Note that the amounts in lines 4 and 12 should coincide.

4. **Project Financial Benefits:** Do not complete this section – data will be derived from the EAW.

4.6 Section F: Vendor Project Budget

1. **Vendor Cost for FSR Development.** If a vendor assisted the department in conducting the feasibility study and documenting the results in the FSR, identify the cost of these resources.
2. **Vendor Name:** If a vendor assisted the department in conducting the feasibility study and documenting the results in the FSR, identify the name of the individual or company.

VENDOR PROJECT BUDGET

1. **Fiscal Year.** Enter the fiscal years from beginning through completion of the proposed project.
2. **Primary Vendor Budget:** Enter the estimated costs for the primary vendor by fiscal year.
3. **Independent Oversight Budget:** Enter the estimated costs for independent verification and validation, project oversight, and project management costs by fiscal year.
4. **DOIT Oversight Budget:** Enter the DOIT oversight cost projections by fiscal year.
5. **Total Vendor Budget:** System-generated.

NOTE: The remainder of this section should be completed only for submittal of Special Project Reports. Please refer to DOIT's SIMM Volume II, Guideline 7.0: Special Project Report Guidelines for additional information.

4.7 Section G: Risk Assessment Information

1. **Risk Assessment Model:** Enter the DOIT Risk Assessment Model (RAM) scores for Strategic Risk, Financial Risk, Project Management Risk, Technology Risk, and Change Management and Operational Risk (1.-5.). Also enter the date of the most recent RAM completed for the project (7.). The Rating Column and the Overall Risk Score are system-generated.
2. **Risk Management Plan:** Indicate whether the department has prepared a Risk Management Plan for the proposed project (Y/N). If so, provide the name of the department document in which it is described, the page reference, and the date of the document in the General Comments area below.

3. The **General Comments area** may be used to provide a high-level overview of the department's Risk Management Plan, if desired.

4.8 Section H: Project Profile

This section lists several ways in which projects may be described:

1. Implementation approach
2. Project type
3. Business Program/Practice
4. Outsourced components
5. Operating system
6. Hardware platform
7. Database engine
8. Messaging engine
9. Web server
10. Development tools
11. Network protocols

In categories 1 through 4, check ***one or more*** attributes that apply to the proposed project. For categories 5 through 11, identify the proposed operating system, hardware platform, database engine, messaging engine, web server, development tool, and network protocol as appropriate.

5.0 BUSINESS CASE

5.1 Business Program Background

This section should include the following:

1. A description of the business program to be supported by the information technology proposal.
2. A description of the current business process that is the subject of the proposal (this may include narrative and/or visual representation).
3. The impact of the proposal on the business program/process.
4. The customers and users of the business program/process.

Customers will typically include the subset of the public served by the business program, while users will include department staff involved in the program and State organizations requiring information from the program.

The program background should contain a brief summary of:

- The relevant features of the department program experiencing the problem or opportunity (including the manner and extent to which information technology is currently applied); and
- The conditions which created, or significantly contributed to, the problem or opportunity being addressed by the FSR. Examples include workload increases, staff reductions, additional requirements mandated by law or Federal regulations, and limitations in the capacity or capability of the information technology resources currently used in the department.

The background summary should provide the facts necessary to understand the problem or opportunity and the defined objectives within their business context. If possible, this summary should contain a definition of the affected units of work and estimates of the quantity of work processed; for example, number of cases decided, licenses issued, or loans processed during the month, quarter, or year. Estimates should address historic workload growth, seasonal variations, and future projections. Finally, business assumptions the department has made that will impact the proposed project should be documented: e.g., caseload growth, etc.

5.2 Business Problem or Opportunity

The problem/opportunity statement should provide a general discussion, in business terms, of the problems or opportunities that are to be addressed. For example, “Our department is required to disburse benefit checks by the fifth working day of each month. With our current system, we are able to meet that deadline only 70% of the time.” Typically, a problem or opportunity relates to the need to:

1. provide necessary services more efficiently or effectively, or new services mandated by law.
2. obtain needed information that is not currently available.
3. reduce the costs of program operations.
4. generate more revenue.
5. avoid unnecessary increases in a program's budget.

In addition to being stated in business terms, the discussion of each problem or opportunity should provide:

- an understanding of the magnitude of the problem or opportunity; and
- a basis for determining the extent to which the problem or opportunity would be addressed if an appropriate alternative were implemented.

Problems and opportunities should be analyzed in terms of their impact on the department's mission and programs. Key questions to ask include *What created the problem?* (or *How was the opportunity recognized?*); *What is the magnitude of the problem or opportunity?*; and *What are the consequences for the department and its clients if the problem or opportunity is not addressed?* Examine contributing factors, such as workload increases or staff reductions, and fiscal constraints, such as decreased federal funding. If the problem or opportunity results from new legislative requirements or changes in mission or priorities, such factors should be considered. In some cases, the consequences of taking no action in response to the problem or opportunity should be assessed.

By understanding the magnitude of the problem or opportunity, the department will be better able to estimate reasonable amounts of resources to expend in responding to it and the extent to which a response will resolve it.

5.3 Business Objectives

Business objectives define the significant results that must be achieved for a proposed solution to be an effective response to the problem or opportunity being addressed. Objectives are the "success factors" against which the agency and control agencies can measure the responsiveness of the recommended alternative in addressing the problem or opportunity being studied.

It is essential that:

- each objective relate to a problem or opportunity specified in the problem/opportunity statement
- each objective be stated in programmatic and observable/measurable terms
- each objective be realistically achievable

In establishing objectives, decide whether the response should be concerned with costs, agency operations, or both. If the response relates to the costs of one or more programs, determine whether it should be expected to reduce costs, avoid costs, or increase revenue. If the response relates to operations (how a program provides services or creates products), determine if responding to the problem will improve timeliness or quality. Improvements in the timeliness and quality of program operations must be related to established program requirements. In addition, applications of information technology are ordinarily expected to pay for themselves. The department should be able to translate operational improvements into reduced costs.

Establishment of business-oriented objectives should generally include the following steps:

1. **Setting general objectives:** Once a program process has been identified as a candidate for enhancement through the application of information technology, objectives should be stated in broad terms, such as to decrease costs, increase revenues, increase service levels, or avoid additional costs in meeting an increased workload.
2. **Analyzing the program process:** With the general objectives in mind, the program process can be analyzed in terms of information flow and management to determine how information technology may contribute to the accomplishment of those objectives. Automation of a program process cannot be accomplished in an effective manner without a thorough study and understanding of the processes affected. Identify the operational areas in which change would directly contribute to the accomplishment of the general objectives. For example, if a general objective is to reduce program backlog without increasing program costs, a target might be to reduce the average time or effort required to locate needed records.
3. **Setting specific program objectives:** Develop specific program objectives for improving the program process. If the analysis of the program process indicates that the application of information technology is warranted, establish specific, quantifiable objectives, such as: “reduce the average amount of employee overtime worked by [a specified number of] hours per month, thereby saving [a specified dollar amount] per year”). It is typically not enough to say that a new system will be faster than its predecessor. The department should be able to describe how the increased speed will translate into program cost or operational improvements.

5.4 Business Functional Requirements

This section should provide a complete description of the essential characteristics that the proposed solution must incorporate to satisfy each objective. For example, an objective might be “to mail 98% of the benefit checks by the end of the fifth working day of each month.” A related functional requirement might be that “the response must be capable of producing xx checks during one work shift”. Describe the functional requirements in sufficient detail for executive and program management and control agency staff to understand the functions to be performed by the information technology; examples follow on the next page.

INPUTS	OUTPUTS	FILES	SCOPE OF EFFORT	SECURITY REQUIREMENTS	INTERFACE REQUIREMENTS
<ul style="list-style-type: none"> data groups 	<ul style="list-style-type: none"> data groups 	<ul style="list-style-type: none"> data groups 	<ul style="list-style-type: none"> number of users 	<ul style="list-style-type: none"> maintain data integrity 	<ul style="list-style-type: none"> interactions with other organizations
<ul style="list-style-type: none"> volumes 	<ul style="list-style-type: none"> volumes 	<ul style="list-style-type: none"> size 	<ul style="list-style-type: none"> number of locations 	<ul style="list-style-type: none"> satisfy confidentiality and security requirements 	<ul style="list-style-type: none"> information sharing
<ul style="list-style-type: none"> frequency 	<ul style="list-style-type: none"> frequency 	<ul style="list-style-type: none"> retention period 			<ul style="list-style-type: none"> reporting requirements
<ul style="list-style-type: none"> source 	<ul style="list-style-type: none"> quality 	<ul style="list-style-type: none"> update frequency 			
<ul style="list-style-type: none"> quality 	<ul style="list-style-type: none"> media 	<ul style="list-style-type: none"> volumes 			
<ul style="list-style-type: none"> media 	<ul style="list-style-type: none"> distribution 				
<ul style="list-style-type: none"> seasonal variation 					
<ul style="list-style-type: none"> accuracy 					

The functional requirements should also describe information processing requirements and special requirements related to staffing and training.

6.0 BASELINE ANALYSIS

6.1 Current Method

Often the department must examine several existing information systems, as well as related manual processes, before it can obtain a clear understanding of the information management practices that are related to the problem or opportunity. Reviewing the current methods of operation will (1) help ensure that the full technical and managerial implications of the problem or opportunity are understood; and (2) provide a baseline against which potential advantages and disadvantages of changes in information management systems may be measured.

If a current information system exists, either manual or automated, explore the following characteristics of the existing system:

1. the objectives of the current system;
2. the ability of the system to meet current and projected program and workload requirements (e.g., processing backlogs or increasing system demands);
3. level of user and technical staff satisfaction with the system;
4. data input (e.g., key entry, optical character recognition), related manual procedures, processing (e.g., data validation routines) and output characteristics;
5. data characteristics (content, structure, size, volatility, completeness, accuracy, etc.);
6. system provisions for security, privacy and confidentiality;
7. equipment requirements of the current system (e.g., processors, peripherals, and communications devices);
8. software characteristics (e.g., application software, operating system software, etc.);
9. internal and external interfaces;
10. personnel requirements, including management, data entry, operations, maintenance, and user liaison;
11. system documentation (format, availability, and accuracy); and
12. failures of the current system to meet the objectives and functional requirements of an acceptable response to the problem or opportunity.

Some of the factors listed above apply primarily to automated systems. Investigation of manual operations should be similar in scope, but tailored to the special characteristics of such operations. Existing system costs, both information technology and program, should be documented through completion of an Economic Analysis Worksheet (see the EAW section).

6.2 Technical Environment

Department staff will find it helpful to review the organizational, managerial, and technical environment within which the proposed solution will be implemented. Identify assumptions and constraints that affect the problem or opportunity and that will impact the implementation of an acceptable solution. Consider the following factors:

1. The expected operational life of a proposed solution.
2. The necessary interaction of a proposed solution with other systems, agency programs, and organizations (such as sharing of information or intergovernmental data exchange).
3. State-level information processing policies, such as the enterprise system strategy and data center consolidation.
4. Financial constraints, including fiscal year limitations and potential financial impact on local government.
5. Legal and public policy constraints (such as confidentiality, security and privacy, the Freedom of Information Act, the Information Practices Act, the California Public Records Act, the State Records Management Act, or other legislatively mandated requirements).
6. Department policies and procedures related to information management.
7. Anticipated changes in equipment, software, or the operating environment.
8. Availability of personnel resources for development and operation of information management applications, including required special skills and potential recruitment.

6.2.1 Existing Infrastructure

This section should briefly describe the department's existing infrastructure and technical architecture to provide a context in which the proposed solution will be implemented. Identify any departmental, as well as statewide, technical standards or constraints that might appropriately narrow the range of reasonable technical alternatives. Relevant technical standards might relate to the following areas:

1. desktop workstations
2. LAN servers
3. network protocols
4. application development software
5. personal productivity software
6. operating system software
7. database management software
8. application development methodology

9. project management methodology

The department may also use this section to document additional technical requirements of a proposed solution, such as technical staff training. However, if the department proposes an alternative procurement approach, the FSR will include few technical requirements, but instead focus on business requirements.

7.0 PROPOSED SOLUTION

The Proposed Solution Section identifies the alternative which best satisfies the previously defined objectives and functional requirements. It also provides additional information on the course of action proposed in the FSR. This section should incorporate sufficient detail to allow decision-makers to confirm the advantages and disadvantages of the recommended alternative in terms of:

1. objectives and functional requirements
2. overall program costs and benefits
3. resources (time, funding, people, expertise)
4. potential risks associated with the alternative

7.1 Solution Description

Identify the proposed solution and discuss the business process upon implementation of the solution; graphic representation may be included, if applicable. Address each of the following subjects, *if applicable to the solution*:

1. **Hardware:** What type of equipment will the proposed solution require? Provide sufficient detail regarding the equipment components, such as processors, workstations, peripherals, and communications devices to allow a complete understanding of the requirements.
2. **Software:** What are the software requirements associated with the solution? Include operating system software, application software, and database management software.
3. **Technical platform:** Briefly describe the technical platform on which the solution will operate.
4. **Development approach:** Will any necessary application development be completed in-house by technical staff or by contract staff, or will a commercial off-the-shelf solution be purchased? Will the project team use a structured development methodology and, if so, does the project team have experience with use of the methodology?
5. **Integration issues:** Are there other systems with which the solution must interoperate, and who will be responsible for ensuring successful integration?
6. **Procurement approach:** Describe the procurement approach the department plans to use. Examples include CMAS, one of the State's MSAs, the traditional RFP method, and the alternative procurement method. Also describe how the approach was selected and compare and contrast procurement approaches if alternatives were considered. A lease/purchase analysis by fiscal year may be included for proposed acquisition of equipment. (See SAM Sections 5206-5208.)

7. **Technical interfaces:** Are there other systems, either internal or external, with which the proposed solution is required to interface? If so, are there any significant issues in establishing the interface, and how will this be accomplished?
8. **Testing plan:** Briefly describe the department's plan for unit, system, and acceptance testing. Are there any significant anticipated testing issues?
9. **Resource requirements:** Identify the expected human resource requirements, in terms of staffing and training, and technical requirements for implementation, maintenance, and on-going operation of the proposed solution. Consider training requirements for both user and technical staff.
10. **Training plan:** Briefly describe the department's training plan for preparing program staff to use the system and for technical staff to develop, operate, and maintain the system.
11. **On-going maintenance:** How will the department provide for on-going operations and maintenance of the system? What are the availability requirements of the proposed system? Discuss the department's long-term maintenance and operations strategy and how it will address those availability requirements (include a discussion of applicable warranties and maintenance agreements).
12. **Information security:** What are the security requirements of the proposed system, and how were they determined? What types of safeguards will the department implement to ensure the required security of the information processed and maintained by the proposed solution?
13. **Confidentiality:** What are the confidentiality requirements associated with the information processed and maintained by the proposed system? What measures will the department use to meet these confidentiality requirements?
14. **Impact on end users:** What is the anticipated impact of the new system on its end users, and what actions are planned to address these issues? Consider change acceptance, training needs, and modifications in the way in which work activities will be completed.
15. **Impact on existing system:** What is the expected impact on the existing system? If the existing system will need to be supported for a period of time, have resources for this effort been considered? Have data conversion issues been addressed? If the proposed solution would divert staff or other resources from other projects, indicate the effect of such a diversion on departmental programs.
16. **Consistency with overall strategies:** Discuss the alignment of the proposed project with the department's Agency Information Management Strategy (AIMS) and strategic business plan, as well as the State's strategic direction for information technology.
17. **Impact on current infrastructure:** Will the proposed solution require any changes to the department's existing information technology infrastructure? Will additional

processing or communications capacity be required to support the solution, and have related costs been included?

18. **Impact on data center(s):** If the solution requires processing support from one of the State's consolidated data centers, has the department coordinated with the data center? Does sufficient support capability currently exist at the data center, or will the data center's infrastructure need to be augmented?
19. **Data center consolidation:** Is the proposed solution consistent with the State's requirement that all new non-mainframe systems, except those used for LAN and office automation functions, be sited at one of the two major data centers unless the department can provide compelling business requirements for alternate siting and identify all costs and activities associated with the support of the system.
20. **Backup and operational recovery:** What are the business requirements for recovery of the proposed IT system following a site or regional disaster, and how will the department address those requirements on an on-going basis? Identify all one-time and on-going costs associated with the proposed operational recovery plan.
21. **Public access:** Does the proposed solution provide direct public access to State databases by private sector organizations or individuals? If so, what data safeguards are required, and how will they be implemented and maintained on an on-going basis?
22. **Costs and Benefits:** Discuss the estimated one-time development and acquisition costs, as well as the on-going maintenance and operations costs expected to be associated with the project. This information should be at a sufficient level of detail (e.g., number and capacity of proposed hardware, etc.) to enable control agencies to fully evaluate the cost impact of the proposal. Also discuss the anticipated programmatic benefits of the proposal, including tangible and intangible benefits, revenue generation, cost savings, and cost avoidances.
23. **Sources of funding:** Explain how the proposed alternative is to be funded by fiscal year. If the project is to be funded from multiple sources, indicate the percentage from each source. Also indicate whether funds have been budgeted for this purpose or, if a request for budget augmentation will be submitted, cite the fiscal year.

7.2 Rationale for Selection

Explain the rationale for selection of the proposed solution. This should be a detailed rationale, but it may be summarized if the reasons are clearly explained elsewhere, such as in the solution description. In this section, describe how the proposed solution best meets the objectives and requirements of a response to the problem or opportunity. Also describe the assumptions and constraints that impacted the selection of the proposed solution.

7.3 Other Alternatives Considered

Each alternative should be assessed in terms of its ability to satisfy the previously defined objectives and functional requirements. This section should include a *brief* description of the alternative solutions considered but not selected. Typical alternatives include maintaining the current system, creating a manual system, and developing or enhancing an automated system. Automated system solutions may include a variety of technological alternatives, such as personal computers, local area networks, office systems, minicomputers, and use of one of the State's data centers. Alternatives may also include developing or purchasing software.

An example follows:

A department has determined that its current automated information system for caseload management does not meet its requirements. The data is not compatible with the data of related agency programs; insufficient data validation is performed, resulting in a significant percentage of records in error; and the system is so complex that users must receive extensive training.

The department might identify the following possible alternative solutions:

- Accept the limitations of the system
- Modify the software for the current system to improve data validation and ease of use
- Develop a new caseload management system to meet program requirements
- Develop a department-wide database system, combining data from related programs

7.3.1 Describing Alternatives

Describe each alternative, consistent with statewide policy, that will satisfy those objectives and requirements. Include in that description the following components:

1. **Description:** Provide a high-level description of the alternative, explaining how it meets or does not meet the functional requirements and, ultimately, the stated objectives. Include information that will allow the reviewer to verify the stated conclusions.
2. **Costs:** For alternatives that fully satisfy the objectives and functional requirements, estimate the associated one-time (development/acquisition costs), continuing (operations/maintenance costs), and total project costs. Include the costs of the system and those portions of the agency program(s) impacted by the system.

It is not necessary to estimate the costs of alternatives that do not satisfy the objectives and functional requirements. For example, an alternative would not be viable if it were inconsistent with State IT infrastructure policy. However, if the FSR presents only one viable alternative, the narrative should provide a rationale as to the reasons the alternative presented is the only viable alternative. In addition, the

DOIT may suggest that the department consider other alternatives that would potentially satisfy the objectives and functional alternatives.

Do not include the costs of the feasibility study. Be consistent in defining the costs associated with each alternative, as it is necessary to compare the costs of one alternative with those of another. The basis of the cost estimate should be stated to allow verification.

3. **Benefits:** The nature and magnitude of economic benefits that would result from implementing the alternative should be described if these differ from the benefits that would be achieved through other alternatives considered. The nature of any intangible benefits that would result from implementing the alternative should also be described. These benefits generally consist of improved levels of service (in terms of improved timeliness or quality necessary for complying with specified policies).
4. **Advantages:** List the advantages of the alternative relative to the other alternatives considered. An advantage may simply be to meet certain functional requirements better than another alternative, or consistency with the department's overall strategy for information management.
5. **Disadvantages:** Relative to the other alternatives considered, list any disadvantages that are not apparent from simply assessing the costs and benefits. Examples might include the need for significant technical staff support, or the security implications of implementation in multiple locations.

8.0 PROJECT MANAGEMENT PLAN

Preparing a good Project Management Plan is essential to managing a project successfully. The project plan clarifies expectations and becomes the road map for successful completion. You may follow the DOIT's Project Management Methodology (available on DOIT's website at www.doit.ca.gov) or your own methodology for your planning efforts. Once you have completed your planning activities, the DOIT requires the following documentation in the FSR as evidence of thorough project planning. The level of detail must be commensurate with the scope, complexity and risk of the project.

These guidelines show suggested formats for some subsections. Unless a specific form name is identified, these are only suggestions; the information may be presented in any appropriate format as long as the required elements are included. (Note: Although project planning includes risk management, this topic is covered separately in Part 7.)

8.1 Project Manager Qualifications

The DOIT requires assurance that qualified project managers will be managing all State information technology projects. To undertake an IT project, the department must match the manager's experience and training to the complexity and risk level of the project. Include in the FSR a summary of the skills and level of project management experience required to successfully manage this particular project. These qualifications should be based on the unique characteristics of the project, previous project experiences, and tools such as the Risk Assessment Model (available on the DOIT website: www.doit.ca.gov). The DOIT expects the department's commitment to assign a project manager with the appropriate skills, education and experience.

8.2 Project Management Methodology

The DOIT has developed a basic Project Management Methodology (available on DOIT's website at www.doit.ca.gov). This document identifies the essential components of the methodology that the DOIT expects departments to follow for IT projects. Each department may develop or select its own methodology as long as it meets the basic requirements identified in the DOIT's methodology. Please describe briefly:

- the methodology in use in your department and
- how it complies with the DOIT Project Management Methodology.

8.3 Project Organization

To better assess this project's impact on your department, the DOIT needs current organization charts for the following:

1. The project team, including number and classification of team members
2. The impacted program organization(s)
3. The Information Systems organization
4. The Department

8.4 Project Priorities

Managing a project requires the balancing of three factors: resources, schedule, and scope. These three factors are interrelated; a change in one of them causes the others to change as well. Project stakeholders need to agree on the importance of each of these factors before the project begins, as future project management decisions will be guided by these priorities. Use a project trade-off matrix to show the relative importance of each factor:

- *constrained* means the factor cannot be changed
- *accepted* means the factor is somewhat flexible to the project circumstance
- *improved* means that the factor can be adjusted.

For this project, identify one variable to be *constrained*, one to be *improved* and one to be *accepted*.

Schedule	Scope	Resources

8.5 Project Plan

8.5.1 Project Scope

Provide a concise statement of what this project will accomplish, and, if appropriate, what it will not try to accomplish. This scope of work statement is the foundation of your project plan.

8.5.2 Project Assumptions

For the purposes of project planning, certain circumstances or conditions are assumed to be true. Please briefly describe the major assumptions under which this project will be executed.

8.5.3 Project Phasing

The DOIT's policy is that departments plan information technology projects to be implemented in independent phases (see related Management Memo(s)). Phases should consist of the smallest set

of tasks, resources and risks, and utilize the shortest implementation schedules that will deliver useful and measurable business results. Whenever possible, the initial project phase shall be confined to delivering the essential core functionality that will provide the greatest portion of the benefits of the proposed system.

When planning for phased project implementation, specific phases should meet the following criteria:

1. A phase is an economically and programmatically separable segment and should have an independent and substantial programmatic use even if no additional components are acquired.
2. Funding may be identified and/or approved separately for each phase or for the entire project.
3. Each phase, being separate and distinct, should provide value as a standalone project so that if a supplier relationship is terminated after a phase, the work completed is still of value.
4. A supplier will be paid when, and if, the deliverable is completed, tested and accepted.
5. Subsequent phases may be redesigned depending on the results of early phases.

In this section of the FSR, describe the phases planned for this project and what each phase will deliver; or justify why phasing is not appropriate.

Project Phase	Phase Deliverables

8.5.4 Roles and Responsibilities

A formal project structure provides participants with a clear understanding of the authority and responsibility necessary for successful accomplishment of project activities, and enables project team members to be held accountable for effective performance of their assignments.

Briefly describe the roles and responsibilities of the major participants in the project. These will probably include, at a minimum, the project manager, executive management, program management and staff, and project team members. In particular, if outside vendor resources will be used to assist with the project, clearly differentiate between the roles and responsibilities of State staff versus those of vendor staff. Include tasks such as data conversion, training, project management and oversight, and ongoing maintenance, as appropriate.

8.5.5 Project Management Schedule

Based on the project's work breakdown structure (refer to the DOIT's Project Management Methodology for examples), provide identification of the high-level tasks for the project. The DOIT recognizes that each project is different and requires a unique set of tasks. As appropriate, indicate that you have planned for tasks such as procurement, conversion, training for end users, training for technical staff, etc., in addition to the typical steps of any project life cycle.

For the tasks identified, provide a summary schedule for status reporting, against which completion of tasks during the course of the project will be monitored. The schedule should focus on the duration of critical tasks, major management decision points, and progress reporting milestones. The milestones should reflect products and major events that may be readily identified as completed or not completed on the specified due date. Milestones should be spaced at reasonable intervals which allow management or control agency monitoring of project progress.

Task or activity	Estimated effort	Duration	Milestone/Decision Point

8.6 Project Monitoring

Describe the process for tracking and reporting on the status of project deliverables, project schedule and project budget, or identify your standard procedure that will be followed. Include a description of any planned independent project oversight, such as quality assurance or independent verification and validation.

8.7 Project Quality

Briefly summarize your plan for assuring that the project's results will meet the business and technical objectives and requirements, as well as applicable Federal, State and/or department standards. Describe your quality assurance and/or quality control processes, or identify your standard procedure that will be followed; include any independent verification and validation planned for this project. The DOIT recommends, and may require, independent oversight for projects of long duration, high cost, high complexity or other high risk indicators.

8.8 Change Management

Every project experiences changes from the original plan, whether minor or major. Establishing the change management approach in advance helps keep the project in control. Summarize your change management plan to describe for the DOIT your process to track and manage changes over the life of the project, or identify your standard procedure that will be followed. (See the section on Change and Issue Management in the DOIT's *Project Management Methodology*.)

8.9 Authorization Required

Identify any special authorization that must be obtained for the proposed alternative; e.g., Federal agency funding approval or State legislative review. Explain the steps that have been taken to obtain the required authorization and the results of those steps.

9.0 RISK MANAGEMENT PLAN

The Risk Management Plan (RMP) documents the process and procedures that will be used to manage project risks: identifies the persons responsible for managing various areas of risk, how risks will be tracked throughout the life cycle, how contingency plans will be implemented, and how reserves will be allocated to handle risks.

At a minimum, the DOIT requires that the following components be included in the RMP:

- Risk Management Approach
- Completed DOIT Risk Assessment Model (RAM)
- Risk Management Worksheet

9.1 Risk Management Approach

The Risk Management Approach includes a description of the process and procedures that will be used to manage project risks, including who is responsible for managing risks on the project, how risks will be assessed and tracked throughout the life cycle, how contingency plans will be implemented, and how reserves will be allocated. While description of the risk management process should be specific to the proposed project, the department may cite their standard approach to information technology project risk management.

9.2 Completed DOIT RAM Report

NOTE: The RAM may be downloaded from the DOIT web site (www.doit.ca.gov).

The RAM is an automated tool designed to assess the risks associated with information technology projects. It consists of a set of structured questions organized to evaluate five distinct areas of risk, including:

1. **Strategic Risk:** the degree to which the proposed project is in alignment with business strategies.
2. **Financial Risk:** the probability that the organization will be able to secure resources for the entire project life cycle from sponsoring agencies.
3. **Project Management Risk:** the impact on all areas of project management necessary to complete the project, including a realistic time frame, sufficient resources, necessary skill levels and a sound project management approach.
4. **Technology Risk:** the degree to which the project must rely on new, untested or outdated technologies, including hardware, software and networks.

5. **Organizational Impact and Operations Risk:** the amount of change needed within the organization as well as the effort required for continued operations at project completion.

The RAM automatically tabulates the responses to the questions and indicates the level of risk for each of the five areas by displaying the results in a numerical and graphical report format, which can then be printed.

To facilitate the identification and assessment of project risks throughout the life of the project, the RAM should be executed at various stages during the project life cycle. At a minimum, the DOIT requires the execution of the RAM and the submittal of a RAM report with the Feasibility Study Report and at specific project milestones as prescribed during the project approval phase. The RAM report should be submitted to the DOIT both electronically and in hardcopy format.

9.3 Risk Management Worksheet

The Risk Management Worksheet is a display of the identified risks and the key attributes or characteristics for each, including:

1. **Risk Category/Event Description:** a description of the risk event and risk type (an example of a risk category is “Personnel”; an example of a risk event is “Lack of expertise in the software/hardware”).
2. **Probability:** the likelihood of the risk event occurring (use a decimal value from 0 to 1 (e.g., .70) to express the probability of the risk event occurring).
3. **Risk Hours:** this field represents the estimated risk for the event. It is derived by multiplying the loss hours by the probability value.
4. **Affected Project Area/Element:** the component of the project that will be impacted by the risk event (e.g., schedule, budget, system/project interfaces, hardware, software, etc.).
5. **Preventive/Contingency Measure(s):** the measures or actions that will be taken to minimize the effect of the risk event.

NOTE: A sample Risk Management Worksheet is included in the DOIT Project Management Methodology (available on the DOIT web site: www.doit.ca.gov)

The remainder of this section provides information to facilitate an understanding of the risk management process and assists departments in the development of a Risk Management Plan. You may refer to the DOIT Project Management Methodology for additional information on Risk Management.

Risk management sets forth a discipline and environment for identifying, analyzing and responding to project risks. It includes maximizing the results of positive events and minimizing the consequences of adverse events.

Risk management addresses the following risk phases:

- **Risk Assessment:** the identification, analysis, quantification, and prioritization of risks.
- **Risk Response:** the actions taken to manage risk, such as risk avoidance, risk acceptance, risk mitigation, risk sharing, and project oversight.
- **Risk Tracking and Control:** the process of monitoring risks and risk response actions to ensure that risk events are actively dealt with over the course of the project.
- **Risk Reserves:** the resources (cost, time and staff) allocated to manage risks.

To be effective, risk management must be an integral part of the way projects are managed. The process that the project team will use to manage project risks should be defined in the planning stage and executed throughout the life of the project.

9.3.1 Assessment

Risk assessment is the process of identifying risks, analyzing and quantifying risks, and prioritizing risks. It includes a review and determination of whether the identified risks are acceptable. Risk assessment is not a one-time event; it should be performed on a regular basis throughout the life of the project.

The DOIT requires that departments use the DOIT RAM as a means of assessing project risks. To facilitate the on-going assessment of project risks, departments must, at a minimum, execute the RAM at various stages throughout the project life cycle. However, departments may use any number or combination of tools, in addition to the RAM, to assess project risks.

Risk Identification

The first step in the assessment process is risk identification. Risk identification involves speculating about risks that could affect a project and documenting the characteristics of each. Both internal and external risks should be identified and documented. Internal risks are those that the project team controls or influences, such as staff assignments. External risks are beyond the control or influence of the project team, such as legislative actions.

Risk identification is the responsibility of all members of the project team. Areas to consider as potential sources of risk include:

1. The product of the project
2. The cost of the project
3. The duration of the project
4. The size of the project
5. The complexity of the project
6. The technology used on the project
7. The environment in which the project is executed
8. The skill levels of the project team
9. The relationships between team members
10. Project management methods and procedures
11. How well the project fits the culture of the enterprise
12. How great a change will result from the project

Tools to aid in the identification of risks include:

1. **DOIT RAM:** The DOIT RAM consists of a set of structured questions designed to identify and evaluate potential project risks in the following areas: Strategic; Financial; Project Management; Technical, and Organizational Impact and Operations.
2. **Work Breakdown Structure (WBS):** The WBS encompasses the structure of everything that will be done or delivered on the project and provides a comprehensive framework for assessing every aspect of the project for potential risks.
3. **Historical Information:** Historical information/lessons learned on previous projects can be especially helpful in identifying potential risks.
4. **Project Team Brainstorming:** Individual members of the project team may remember previous occurrences or assumptions.
5. **Interviews:** Interviews with various stakeholders may also aid in the risk identification process. Such communication may help identify risks not identified during the normal planning activities. Records of pre-project interviews (e.g., those conducted during a feasibility study) may also be useful.

Risk Analysis and Quantification

Risk analysis and quantification involves evaluating risks to assess the range of possible project outcomes. It provides information that allows managers to determine what is important to the project, to set priorities, and to allocate resources.

Risk analysis and quantification should be continuously performed and the resulting information should be used for decision-making in all phases of the project. Each risk must be analyzed and sufficiently understood in order to facilitate the decision-making process.

Properly implemented, the risk analysis and quantification process will produce a list of opportunities that should be pursued and threats or risks that should be managed. The risk analysis and quantification process should also document the sources of risk and risk events that the project management team has consciously decided to accept.

Factors to consider during the risk analysis and quantification process include stakeholder risk tolerances, sources of risk, potential risk events, and cost/activity duration estimates.

Risk Prioritization

The final step in the risk assessment process is risk prioritization. Risk prioritization involves ranking the risks to place more management effort on those that are the most critical. Key evaluation factors are probability and potential impact or consequences on missions and business objectives.

9.3.2 Risk Response

Risk response is the action taken to manage risk. Risk response actions include avoidance, acceptance, mitigation, sharing, and project oversight. When assessing risk response options, the project team should consider such factors as schedule, resources, and stakeholder risk tolerances.

It is important to note that risk is a part of any activity and may never be entirely eliminated, nor can all risks ever be known. However, as new risks are identified, appropriate response actions should be developed and the RMP should be updated accordingly.

Risk Avoidance

Risk avoidance involves eliminating the risk by eliminating the cause or by using an alternate approach that does not involve the risk. This method is not always an option; however, it is the most effective technique if it can be applied.

Risk Acceptance

Risk acceptance involves simply accepting the risk event and the consequences.

Risk Mitigation

Risk mitigation involves reducing the probability of risk occurrence (e.g., using proven technology to lessen the probability that the product of the project will not work). It involves revising the project's scope/delivery, budget, schedule, or quality to reduce uncertainty on the project.

Risk Sharing

Risk sharing involves shifting some of the risk or risky activities to others, such as contractors, and accepting the remainder.

Project Oversight

Project oversight is a process that employs a variety of quality control, inspection, testing, measurement, and other observation processes designed to help ensure that planned project objectives are achieved in accordance with an approved plan. Project oversight is usually performed by an independent entity (separate from the project team) trained and experienced in a variety of management and technical review methods. A primary responsibility of the independent oversight agent is to assist project management with assessing project risk and developing mitigation strategies.

9.3.3 Risk Tracking and Control

Risk tracking and control involves establishing and maintaining risk status information, defining action plans, and taking corrective action when appropriate. It involves executing the RMP in order to respond to risk events throughout the life of the project.

The elements of risk tracking and control are very similar to the tracking and control functions in project management and can be easily integrated into a project's existing management activities.

Risk Tracking

Risk tracking is required to ensure the effective implementation of the RMP. The goal of risk tracking is to provide accurate and timely information to the project management team to enable risk management and help prevent risks from adversely affecting the project.

Risk tracking is considered the "watchdog" function of risk management. It involves monitoring the progress toward resolving risks and reporting on the status and the actions taken. Information that should be tracked and reported on include:

1. The top ten risk items
2. The number of risk items resolved to date
3. The number of new risk items since the last report
4. The number of risk items unresolved
5. The unresolved risk items on the critical path

To facilitate the risk tracking process, a database that includes information on all significant risks should be developed and maintained for the life of the project. In addition, metrics for measuring performance and progress toward resolving risks should be established and maintained.

Risk Control

Risk control is necessary to help prevent failure on a project. Risk control focuses on the risk response actions. It involves executing the RMP in order to respond to risk events before they become serious problems. The control function ensures that risk procedures are documented and executed according to plan.

As anticipated risk events occur or fail to occur, and as actual risk events are evaluated and resolved, the RMP should be routinely updated.

9.3.4 Risk Reserves

A risk reserve is a provision in the project plan/budget to respond to project risks. It is recommended that every project include reserves for addressing risk and its potential effects. Some experts recommend adding ten percent above the estimated time-of-delivery to the schedule (Reference: The Program Manager's Guide to Software Acquisition Best Practices, Department of Defense).

It is important to note that the reserves for a project will change over time as some are used to mitigate the effects of risks that actually occur and affect the project. As a result, risk reserve re-evaluations and updates should be performed along with risk assessments.

10.0 ECONOMIC ANALYSIS WORKSHEETS (EAWS)

The economic analysis should document the cost and resource assumptions the department made during the feasibility study process. Examples include a percentage allocated for on-going maintenance, projected workload growth, and the relevant tax rate. This section should also document any special conditions or issues related to the source(s) of funding for the proposed project. (The special conditions may be documented as a footnote on the Project Funding Plan; see Item #5 below.)

The proposed project should be costed out for at least one full year beyond implementation in order to reflect estimated on-going maintenance and operations costs. If the program supported by the proposed project is cyclical in nature, the economic analysis should reflect the system in operation for one complete cycle. If outside vendor resources will be used to assist with the project, estimated costs through the life of the contract should be provided. If the proposed alternative is justified based on a projected financial benefit, estimated costs should be extended through the payback period.

The Economic Analysis Worksheets (EAWs) provided in the attachments provide a standard format for documenting the projected costs and financial benefits of the current method of operation and the proposed alternative. The worksheets may be used to perform cost analyses of the full range of alternatives under consideration. However, the following Economic Analysis Worksheets must be included in the FSR:

1. **Existing System Cost Worksheet:** documenting the current and projected operations/maintenance costs of the current method of operation (baseline);
2. **Alternative System Cost Worksheet:** documenting the projected one-time costs (development/acquisition costs), continuing costs (operations/maintenance costs), and impacted program costs of the *proposed* alternative;
3. **Alternative System Cost Worksheet(s):** documenting the projected one-time costs (development/acquisition costs), continuing costs (operations/maintenance costs), and impacted program costs of other alternatives, *if any*, that satisfactorily meet the objectives and functional requirements;
4. **Economic Analysis Summary:** comparing the estimated costs of the proposed alternative, other alternatives meeting the objectives and functional requirements, and the existing system; and,
5. **Project Funding Plan:** documenting the estimated resources needed for implementing the proposed system and the necessary budget actions anticipated.

10.1 General EAW Instructions

The following general instructions should be followed when preparing the Economic Analysis Worksheets. Detailed instructions for completing the data elements for the individual Economic Analysis Worksheets begin in the following section.

1. The worksheet should summarize all costs by fiscal year.
2. When computing the costs for the current method of operation (baseline), the costs should not be narrowly defined, as doing so could result in failure to document increases or decreases in overall program costs resulting from the alternatives under consideration. For example, an alternative might result in a reduction in facilities costs as a consequence of converting manual documentation to automated files. Similarly, an alternative might allow a reduction in the number of clerical personnel necessary for program operations.
3. Cost figures are to be rounded to the nearest \$100 and reported in \$1,000 increments. For example, \$49,325 would be reported as \$49.3. Estimates of personnel years are to be rounded to the nearest one-tenth full-time equivalent.
4. One-time Costs (development/acquisition costs) are defined as costs associated with analysis, design, programming, staff training, data conversion, acquisition, testing, integration, and implementation.

Costs included in the One-time Cost category are acquisition, development and installation of:

- sites and facilities;
- data processing, telecommunications, environmental conditioning, security and privacy equipment associated with project development; and
- operating system, multi-purpose and applications software.

NOTE: Also included in the One-Time Costs category are costs associated with leased or rented equipment and costs to be accrued under a lease/purchase contract prior to project completion; i.e., prior to completion of the Post-Implementation Evaluation Report. The entire cost of all installment purchase contracts and all purchase costs associated with one-time acquisitions should always be reported as One-time Costs.

Other one-time costs are typically administrative and may be generated by:

- a) studies (requirements and design);
- b) procurement planning and benchmarking;
- c) database preparation;
- d) software conversion;
- e) technical management reviews;
- f) training, travel and other personnel-related activities associated with development and installation;
- g) relocation of personnel; and
- h) contractual, interagency or other direct support services (processing capacity, telecommunications, software, technical and other support).

- 5. Continuing Costs (operations/maintenance costs) represent the yearly costs associated with on-going operation of the proposed alternative.
- 6. Impacted program costs are defined as costs associated with programmatic (i.e., not data processing or telecommunications) implementation of new information technology applications. Both one-time and continuing costs should be included. **It is not necessary to estimate the costs of the entire program -- only the costs of program operations or support that will be affected by the project.**

Affected program costs may include:

- a) personnel;
 - b) sites and facilities for personnel;
 - c) travel and training personnel;
 - d) supplies; and
 - d) continuing contractual and interagency services.
- 7. Report each cost in the single category that is most appropriate. Do not duplicate costs between cost categories.
 - 8. "Staff," in the case of one-time (development/acquisition) costs, should include costs and personnel year requirements for all State personnel necessary for the successful development or acquisition of the information technology capability. In the case of continuing (operations/maintenance) costs, "staff" includes costs and personnel years that are required for continued operation and maintenance of the alternative being considered.
 - 9. Included in "Program Staff Costs" are the costs and personnel years required for program and support personnel. For example, if automation of a claims processing function is proposed, a reduction in the personnel responsible for claims processing

and claims auditing may be expected. The projected personnel years and associated costs for the existing claims processing system should be documented in the Economic Analysis Worksheet under the Total Continuing Existing Costs for the alternative under consideration.

10. Personnel costs should be consistent with those used by the department in preparation of the current Salaries and Wages Supplement. The costs for interagency agreements and commercial contracts that supplement staff resources should be based on the rate structure provided in the agreement or contract.

10.2 Specific EAW Instructions

Each FSR and SPR must contain an Economic Analysis Worksheet Package completed in accordance with the directions specified below. A completed package (1) documents in a consistent manner projected costs of the current method of operation, and comparative costs and financial benefits of each alternative which was considered and costed out and, (2) specifies resources needed and a funding plan for implementing and operating the proposed alternative. This information provides an objective basis for evaluating the economic feasibility of a proposed information technology project.

Departments are responsible for developing and maintaining Economic Analysis Worksheets for all IT projects. A copy of the worksheets must accompany each FSR and SPR submitted to the DOIT.

Guidelines for Preparing the Spreadsheets

1. Each alternative, as well as the existing system, must be costed out for the same number of years. Departments are encouraged to structure short-term projects that do not exceed six years for development and on-going operations.
2. Each alternative must be costed based on reasonable workload estimates and realistic budget actions. The Department of Finance and the DOIT will work together in ensuring that workload estimates are reasonable and anticipated budget actions are realistic. To be realistic, the anticipated budget actions must take into account current State fiscal conditions.
3. Cost estimates are **not** to be adjusted for inflation.
4. Each alternative costed must be capable of satisfying the critical project objectives and requirements.
5. If the proposed alternative is expected to involve DOF budget actions (augmentations, redirections and/or reductions), it must be costed to correspond with amounts identified in budget request documents (BCPs, Finance Letters, and Budget Revisions).

6. Costs and financial benefits should be derived in a consistent manner for each costed alternative: For example, the same methodology should be used for calculating PY costs for each alternative.

Automated Spreadsheet Package

The Department of Information Technology has made available a PC software package to facilitate departments to accurately prepare Economic Analysis Worksheet Packages with a minimum of effort. This software package produces hardcopies of all of the worksheets required. Departments are not restricted to using only the DOIT-provided software if the requirements specified in this Economic Analysis Worksheet Package are met. (Instructions specific to the software package begin in the Automated Spreadsheet Package section following.)

Existing System Cost Worksheet

This worksheet indicates the estimated resources needed for operating the affected existing IT system and/or program should the existing system not be replaced. In the case where the current method of operation is entirely manual, a basis for cost comparison should still be developed. Typically, the economic analysis worksheet documenting the baseline cost of a manual current method of operation will include program costs only.

Information Technology (IT) Continuing Costs

This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel performing on-going system maintenance/operations functions, such as computer operations, user support, and maintenance activities.
2. **Hardware/Software:** Costs of on-going rental/lease and/or maintenance of vendor-supplied computer hardware, telecommunications equipment, system software, and/or application software.
3. **Data Center Services:** Costs for State data center services, such as computer processing and consulting for on-going system maintenance/operations.
4. **Contract Services:** Costs for contracted services (not included elsewhere), such as computer processing, telecommunications, consulting, and maintenance activities provided by other departments and/or non-State entities for on-going system maintenance/operations.
5. **Agency Facilities:** Costs of on-going rental/lease and/or maintenance of any physical facilities, such as floor space and non-IT equipment, associated with the existing system.
6. **Other:** Operating Expenses and Equipment costs for personnel included in the "Staff" cost element, and any other on-going system maintenance/operations expenses (such as supplies, utilities, and training) not included in the other cost elements.

7. **Total IT Costs:** The sum of the above cost elements.

Program Costs

This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel performing program work that will be directly affected by this project.
2. **Other:** All other program expenses that will be directly affected by this project, including Operating Expenses and Equipment costs for personnel included in the "Staff" cost element.
3. **Total Program Costs:** The sum of these two elements.

Total Existing System Costs

1. The sum of "Total IT Costs" and "Total Program Costs".

Alternative System Cost Worksheet

This worksheet(s) presents the estimated cost of the proposed alternative, as well as any other costed alternatives. It includes (1) both one-time and continuing costs of implementing the new system or other alternative, and, (2) any continuing costs for the existing IT system and affected program during the same period. The worksheet also indicates the estimated amount of increased revenues (if any) which the State would receive as a direct result of the new system or other alternative.

Information Technology (IT) One-Time Costs

This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel performing system development/implementation activities, such as systems analysis, design, construction, testing, conversion, and installation.
2. **Hardware/Software:** Costs of one-time purchase, installment purchase, or lease purchase of vendor-supplied computer hardware, telecommunications equipment, system software, and/or application software.
3. **Data Center Services:** Costs for State data center services, such as one-time consulting or computer processing for system development/implementation.
4. **Contract Services:** Costs for contracted services (not included elsewhere), such as consulting, programming, and data conversion provided by other departments and/or non-State entities for system development/implementation.

5. **Agency Facilities:** Costs of acquiring any new physical facilities, such as floor space and non-IT equipment, needed as a result of this project.
6. **Other:** Operating Expenses and Equipment costs for personnel included in the "Staff" cost element, and any other system development/implementation expenses (such as supplies, utilities, and training) not included in the other cost elements.
7. **Total One-Time IT Costs:** The sum of the above cost elements.

IT Continuing Costs

This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel performing on-going system maintenance/operations functions, such as computer operations, user support, and minor maintenance activities.
2. **Hardware/Software:** Costs of on-going rental/lease and/or maintenance of vendor-supplied computer hardware, telecommunications equipment, system software, and/or application software.
3. **Data Center Services:** Costs for State data center services, such as computer processing and consulting for on-going system maintenance/operations.
4. **Contract Services:** Costs of contracted services (not included elsewhere), such as computer processing, telecommunications, on-going consulting and minor maintenance activities provided by other departments and/or non-State entities for on-going system maintenance/operations.
5. **Agency Facilities:** Costs of on-going rental/lease and/or maintenance of any new physical facilities, such as floor space and non-IT equipment, which became necessary as a result of this project.
6. **Other:** Operating Expenses and Equipment costs for personnel included in the "Staff" cost element, and any other on-going system maintenance/operations expenses (such as supplies, utilities, and training) not included in the other cost elements.
7. **Total Continuing IT Costs:** The sum of the above cost elements.

Total Project Costs

1. The sum of "Total One-Time IT Costs" and "Total Continuing IT Costs".

Continuing Existing IT Costs

These are the costs of operating the existing IT system, costed in the Existing System Cost Worksheet, until it is replaced in whole or in part by the new IT system. This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel performing on-going system maintenance/operations functions, such as computer operations, user support, and minor maintenance activities.
2. **Other:** All other expenses incurred in maintaining/operating the existing IT system, including costs for data center services, consulting services, telecommunications, supplies, etc.
3. **Total IT Costs:** The sum of these two elements.

Continuing Existing Program Costs

These are the non-IT (program) costs, costed in the Existing System Cost Worksheet, that will be directly affected. If a project is justified on the basis of a financial benefit, these costs would typically reflect resource reductions or resources increasing at lesser rates when compared with Existing System Program Costs. This cost category consists of:

1. **Staff:** PYs and personal services costs (salaries and wages, and staff benefits) of departmental personnel in the program area that is affected directly by this project.
2. **Other:** All other program expenses which are affected (such as reduced costs for AFDC or contract services) by implementing the new system.
3. **Total Program Costs:** The sum of these two elements.

Total Continuing Existing Costs

1. The sum of "Total IT Costs" and "Total Program Costs".

Total Alternative Costs

1. The sum of "Total Project Costs" and "Total Continuing Existing Costs".

Increased Revenues

1. The total amount of additional revenues which the State would receive (such as increased tax collections or recoveries) as a direct result of implementing the new system.

10.3 Economic Analysis Summary

NOTE: The contents of the Economic Analysis Summary are generated automatically, based on information contained in the other worksheets.

The Economic Analysis Summary presents financial data on each costed alternative to determine (1) whether the proposed system is economically justified and (2) which alternative offers the most cost-effective solution.

Existing System

These elements consist of:

1. **Total IT Costs:** PYs and costs required for operating the existing IT system should the existing system not be replaced.
2. **Total Program Costs:** PYs and costs required for operating the affected program should the existing system not be replaced.
3. **Total Existing System Costs:** The sum of the above cost elements.

Alternative System(s)

A set of the following elements is presented for the proposed alternative and for all other costed alternatives.

1. **Total Existing System Costs:** PYs and costs required for operating the existing IT system and affected program should the new system not be implemented.
2. **(Total Project Costs):** PYs and costs required for implementing and operating the alternative system.
3. **(Total Continuing Existing Costs):** PYs and costs required for operating the existing IT system and affected program.
4. **Total Alternative Costs:** The sum of "(Total Project Costs)" and "(Total Continuing Existing Costs)".
5. **Cost Savings/Avoidances:** The result of subtracting "Total Alternative Costs" from "Total Existing System Costs". Represents PYs and costs which would be saved or avoided as a result of implementing the alternative system.
6. **Increased Revenues:** The total amount of additional revenues which the State would receive (such as increased tax collections or recoveries) as a direct result of implementing the alternative system.
7. **Net (Cost) or Benefit:** The sum of "Cost Savings/Avoidances" and "Increased Revenues". This represents net financial benefits expected to result from implementing the alternative solution. Positive amounts indicate that the alternative would be more cost-effective than continuing with the existing system. Conversely, negative amounts indicate that the alternative would be less cost-effective than the existing system and, in that case, the alternative would have to be justified on a basis other than financial benefit.

8. **Cumulative Net (Cost) or Benefit:** Sum of "Net (Cost) or Benefit" amounts for all fiscal years, up to and including the fiscal year to which the "Cumulative Net (Cost) or Benefit" amount pertains.

10.4 Project Funding Plan

The Project Funding Plan is completed for the Proposed Alternative only, based on the Total Project Costs. This plan indicates estimated resources needed for implementing and operating the proposed system, how the department intends to acquire these resources, and what necessary budget actions are anticipated. Departments are expected to fund projects through redirections of existing budgeted resources whenever possible.

The Project Funding Plan consists of the following categories:

1. **Budgeted:** PYs and dollar amounts available for the project at the beginning of the fiscal year as appropriated in the Budget Act. Typically, for the first fiscal year, PYs and dollars are zero (an exception would be if funds were specifically appropriated and budgeted for implementing the project); for each ensuing year, PYs and dollar amounts are the same as those appearing in the "Total Project Funds" element for the prior year.
2. **Redirections:** This category consists of:
 - **Existing IT:** PYs and dollar amounts to become available for this project or for budget reductions due to their no longer being needed for operating the existing IT system being replaced by the proposed system.
 - **Existing Program:** PYs and dollar amounts to become available for this project or for budget reductions due to reductions in program resource requirements occurring as a direct result of the proposed system.
 - **Other:** PYs and dollar amounts that become available for this project from programs or projects that are outside the scope of this project. These redirected resources are assumed to remain in the project's base budget until they are shown as being reduced.
3. **Total Funds Available:** The sum of PYs and amounts indicated in "Budgeted" and in the three "Redirections" elements above.
4. **Budget Actions Requiring DOF Approval:** This category consists of:
 - a. **One-Time Costs:** PYs and dollar amounts to be added for funding one-time IT activities. Positive figures indicate resources added to the department's budget; negative figures indicate resources deleted.
 - b. **Continuing Costs:** PYs and dollar amounts to be added for funding continuing IT activities. Positive figures indicate resources added to the department's budget; negative figures indicate resources deleted.

- c. **IT Reductions:** IT PYs and dollar amounts expected to be saved and deleted from the department's budget as a result of the project. All reductions are shown as negative figures.
 - d. **Program Reductions:** Program PY and dollar amounts expected to be saved and deleted from the department's budget as a result of the project. All reductions are shown as negative figures.
 - e. **Total Budget Actions:** Sum of the four elements indicated above.
5. **Total Project Funds:** Sum of "Funds Available" and "Total Budget Actions" (These amounts will always equal the "Total Project Costs" of the proposed alternative.)

10.5 Automated Spreadsheet Package

The Department of Information Technology (DOIT) has a PC-based Excel software package for the preparation of all spreadsheets required in an Economic Analysis Worksheet Package. The software itself is a Microsoft Excel spreadsheet program. Departments are not restricted to using only the DOIT EAW template, provided the requirements specified in this package are met.

This automated spreadsheet package is designed for costing an Existing System and up to three alternatives. Each spreadsheet may include costs and benefits for up to six fiscal years.

The Automated EAW Spreadsheet Names and Tabs flowchart appears on the next page.

10.6 Automated EAW Spreadsheet Names and Tabs

Title	Worksheet Name	Tab	Always Produced?	Contents Entered by
1. Existing System Cost Worksheet [Prepared when there is an Existing System.]	EXISTING	D	No	User
2. Proposed Alternative System Cost Worksheet	ALTP	E	Yes	User
3. Alternative I System Cost Worksheet [Prepared when there are two costed alternatives, including the Proposed Alternative.]	ALT1	F	No	User
4. Alternative 2 System Cost Worksheet [Prepared when there are three costed alternatives, including the Proposed Alternative.]	ALT2	G	No	User
5. Economic Analysis Summary [Prepared when the only costed alternative is the Proposed Alternative.]	SUM1	A	Yes*	System
6. Economic Analysis Summary [Prepared when there are two costed alternatives, including the Proposed Alternative.]	SUM2	B	Yes*	System
7. Economic Analysis Summary [Prepared when there are three costed alternatives, including the Proposed Alternative.]	SUM3	C	Yes*	System
8. Project Funding Plan	FUND	H	Yes	User

*Only a single Economic Analysis Summary is prepared.

10.7 Instructions for Using The Automated Spreadsheet Package

The flowchart on the previous page presents an overview of the steps involved in using this software to generate an Economic Analysis Worksheet Package. These steps are discussed in detail below.

To prepare a new Economic Analysis Worksheet Package for a given IT project using this automated system, copy the file from the template to a separate sub-directory for the project.

To update an Economic Analysis Worksheet Package previously prepared using this system, only the changes need to be entered for the project.

Entering Headings and Fields Common to All Worksheets

NOTE: The system user selects Tab D and enters information regarding the four headings specified below into the Existing System Cost Worksheet: these headings are system-generated for all the other worksheets.

Headings

1. **Department:** Maximum of 25 characters.
2. **Project:** Maximum of 25 characters.
3. **Project No.:** Maximum of 10 characters.
4. **FY Headings:** 5 characters (format 98/99).

Alternative: Maximum of 25 characters. (This field is used for the name of the specific alternative.)

Fields

1. **PY Fields:** Maximum of 5 characters (format 999.9; enter the decimal if needed; enter leading "-" if a negative number).
2. **FY Fields:** Entered by system user. (Format is 98/99. The initial fiscal year should be entered into the left FY cell. If the proposed project covers only 4 of the 6 FYs provided in the worksheets, the two right-hand FY cells should be left blank.)
3. **Dollar Amount Fields:** Maximum of 7 numeric characters (format 9,999,999; do not enter the commas; enter leading "-" if a negative number).

NOTE: All spreadsheet totals are system-generated.

10.8 Entering Data into the Existing System Cost Worksheet

Enter data into the fields in the "EXISTING" worksheet under Tab D for each fiscal year as indicated below.

Information Technology (IT) Continuing Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Hardware/Software:** Entered by system user.
4. **Data Center Services:** Entered by system user.
5. **Contract Services:** Entered by system user.
6. **Agency Facilities:** Entered by system user.
7. **Other:** Entered by system user.
8. **Total IT Costs:** System-generated.

Program Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Other:** Entered by system user.
4. **Total Program Costs:** System-generated.

Total Existing System Costs

1. System-generated.

After entering the above data for the Existing System Cost Worksheet:

1. Save the file.
2. Proceed to the "Entering Data into the Alternative System Cost Worksheet" segment on the next page.

10.9 Entering Data into the Alternative System Cost Worksheet

Proposed Alternative

System users must prepare a worksheet for the proposed alternative, as follows:

1. Select Tab E for the “ALTP” worksheet.
2. Enter data into the "Common Data Fields Applicable to All Costed Alternatives" for each fiscal year, as indicated below.

Alternative 1

To prepare an Alternative System Cost Worksheet for the first alternative in addition to the proposed system:

1. Select Tab F for the “ALT1” worksheet.
2. Enter data into the "Common Data Fields Applicable to All Costed Alternatives" for each fiscal year, as indicated below.

Alternative 2

To prepare an Alternative System Cost Worksheet for the second alternative in addition to the proposed system:

1. Select Tab G for the “ALT2” worksheet.
2. Enter data into the "Common Data Fields Applicable to All Costed Alternatives" for each fiscal year, as indicated below.

Common Data Fields Applicable to All Costed Alternatives

Enter the name of the proposed alternative in the Alternative field (maximum of 25 characters).

Information Technology (IT) One-Time Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Hardware/Software:** Entered by system user.
4. **Data Center Services:** Entered by system user.
5. **Contract Services:** Entered by system user.
6. **Agency Facilities:** Entered by system user.
7. **Other:** Entered by system user.
8. **Total One-time IT Costs:** System-generated.

IT Continuing Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Hardware/Software:** Entered by system user.
4. **Data Center Services:** Entered by system user.
5. **Contract Services:** Entered by system user.
6. **Agency Facilities:** Entered by system user.
7. **Other:** Entered by system user.
8. **Total Continuing IT Costs:** System-generated.

Total Project Costs

1. System-generated.

Continuing Existing IT Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Other:** Entered by system user.
4. **Total IT Costs:** System-generated.

Continuing Existing Program Costs

1. **Staff PYs:** Entered by system user.
2. **Staff Amts:** Entered by system user.
3. **Other:** Entered by system user.

Total Program Costs

1. System-generated.

Total Continuing Existing Costs

1. System-generated.

Total Alternative Costs

1. System-generated.

Increased Revenues

1. Entered by system user.

After entering the above data:

1. Save the file.
2. Proceed to the "Entering Data into the Project Funding Plan" segment following the "Generating the Economic Analysis Summary" segment below.

10.10 Generating the Economic Analysis Summary

NOTE: All of the amounts contained in this worksheet are system-generated. The following information is presented to show how these amounts relate to amounts contained in the other worksheets.

Existing System

1. **Total IT Costs:** System-generated, from Existing System Worksheet "Total IT Costs".
2. **Total Program Costs:** System-generated, from Existing System Worksheet "Total Program Costs".
3. **Total Existing System Costs:** System-generated, from Existing System Worksheet "Total Existing System Costs".

Proposed Alternative

1. **Total Existing System Costs:** System-generated, from Existing System Worksheet "Total Existing System Costs".
2. **Total Project Costs:** System-generated, from Alternative System Cost Worksheet "Total Project Costs".
3. **Total Continuing Existing Costs:** System-generated, from Alternative System Cost Worksheet "Total Continuing Existing Costs".
4. **Total Alternative Costs:** System-generated, from Alternative System Cost Worksheet "Total Alternative Costs".
5. **Cost Savings/Avoidances:** System-generated, from subtracting "Total Alternative Costs" from "Total Existing System Costs".

6. **Increased Revenues:** System-generated, from Alternative System Cost Worksheet "Increased Revenues".
7. **Net (Cost) or Benefit:** System-generated; Sum of "Cost Savings/Avoidances" and "Increased Revenues".
8. **Cumulative Net (Cost) or Benefit:** System-generated; Sum of "Net (Cost) or Benefit" amounts for all fiscal years up to and including the fiscal year to which the "Cumulative Net (Cost) or Benefit" amount pertains.

Alternatives 1 and 2

The above data element descriptions apply to the Proposed Alternative and also apply to Alternative 1 and Alternative 2 as well.

10.11 Entering Data into the Project Funding Plan

Select Tab H for the "FUND" worksheet and enter data into the fields as specified below.

1. **Budgeted** (PYs and amounts): Entered by system user. The PY and dollar amounts for each FY must correspond with "Total Project Funds" PY and dollar amounts for the prior FY.
2. **Redirections** (PYs and amounts):
 - **Existing IT:** Entered by system user.
 - **Existing Program:** Entered by system user.
 - **Other:** Entered by system user.
3. **Total Funds Available:** System-generated.

Budget Actions Requiring DOF Approval (PYs and amounts):

1. **One-Time Costs:** Entered by system user (may be positive or negative).
2. **Continuing Costs:** Entered by system user (may be positive or negative).
3. **IT Reductions:** Entered by system user (may only be negative).
4. **Program Reductions:** Entered by system user (may only be negative).
5. **Total Budget Actions:** System-generated.
6. **Total Project Funds:** System-generated.

After entering the above data for the Project Funding Plan:

1. Save the file.
2. Print out the appropriate worksheet pages for your project.

Feasibility Study Report Guidelines
SECTION 3: FSR PREPARATION INSTRUCTIONS

SIMM: Volume II
Guideline 5.0

10.12 Existing System Cost Worksheet

EXISTING: Existing System Cost Worksheet

EXISTING SYSTEM COST WORKSHEET

Department:

Project:

Project No.:

	FY		FY		FY		FY		FY		FY		T
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs
INFORMATION TECHNOLOGY (IT) COSTS:													
Continuing:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Hardware/ Software		\$0		\$0		\$0		\$0		\$0		\$0	
Data Center Services		\$0		\$0		\$0		\$0		\$0		\$0	
Contract Services		\$0		\$0		\$0		\$0		\$0		\$0	
Agency Facilities		\$0		\$0		\$0		\$0		\$0		\$0	
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total IT Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
PROGRAM COSTS:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total Program Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Existing System Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0

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10.13 Proposed Solution Cost Worksheet

ALTP: Proposed A

ALTERNATIVE SYSTEM COST WORKSHEET

Department:

Project:

Project No.:

PROPOSED ALTERNATIVE:

	FY		FY		FY		FY		FY		FY		TO
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs
INFORMATION TECHNOLOGY (IT) COSTS:													
One-time:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Hardware/Software		\$0		\$0		\$0		\$0		\$0		\$0	
Data Center Services		\$0		\$0		\$0		\$0		\$0		\$0	
Contract Services		\$0		\$0		\$0		\$0		\$0		\$0	
Agency Facilities		\$0		\$0		\$0		\$0		\$0		\$0	
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total One-time IT Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Continuing:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Hardware/Software		\$0		\$0		\$0		\$0		\$0		\$0	
Data Center Services		\$0		\$0		\$0		\$0		\$0		\$0	
Contract Services		\$0		\$0		\$0		\$0		\$0		\$0	
Agency Facilities		\$0		\$0		\$0		\$0		\$0		\$0	
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total Continuing IT Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Project Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0

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10.13 Proposed Solution Cost Worksheet (continued)

ALTP: Proposed AI

ALTERNATIVE SYSTEM COST WORKSHEET (continued)

CONTINUING EXISTING COSTS:

Information Technology Costs:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total IT Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Program Costs:													
Staff	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Other		\$0		\$0		\$0		\$0		\$0		\$0	
Total Program Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Continuing Existing Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
TOTAL ALTERNATIVE COSTS	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
INCREASED REVENUES		\$0		\$0		\$0		\$0		\$0		\$0	

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10.14 Economic Analysis Summary Worksheet

SUM1: Summary Sheet for Single Prop

ECONOMIC ANALYSIS SUMMARY

Department:

Project:

Project No.:

	FY		FY		FY		FY		FY		FY		T
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs
ECONOMIC ANALYSIS SUMMARY													
EXISTING SYSTEM:													
Total IT Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Program Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Exist. System Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
PROPOSED ALTERNATIVE:													
Total Exist. System Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
(Total Project Costs)	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
(Total Cont. Exist. Costs)	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Alternative Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Cost Savings/Avoidances	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Increased Revenues		\$0		\$0		\$0		\$0		\$0		\$0	
Net (Cost) or Benefit	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Cum. Net (Cost)	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	

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or Benefit													
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10.15 Project Funding Plan Worksheet

FUND: Project Fund

PROJECT FUNDING PLAN

Department:

Project:

Project No.:

	FY		FY		FY		FY		FY		FY		T
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs
PROJECT FUNDING PLAN													
Budgeted:	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Redirections:													
Existing IT	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Existing Program	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Other	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Funds Available	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Budget Actions Requiring DOF Approval:													
One-Time Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Continuing Costs	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
IT Reductions	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Program Reductions	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0
Total Budget Actions	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0

Total Project Funds	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	0.0

Attachments

1: IT PROJECT SUMMARY PACKAGE (BEGINS ON THE NEXT PAGE).

